

Claims

1. A process for the minimization of odor in dimethyl sulfate quaternization of amines made with hypophorous acid which comprises conducting said quaternization in the presence of dimethyl sulfate, wherein said dimethyl sulfate contains less than 20 ppm sulfur dioxide.
2. The process of claim 1 wherein said odor is caused by volatile organic sulphur byproducts.
3. The process of claim 2 wherein said dimethyl sulfate contains less than 8 ppm sulfur dioxide.
4. The process of claim 3 wherein said dimethyl sulfate contains less than 5 ppm sulfur dioxide.
5. A process for preparing an ester quaternary having improved odor profile with comprises esterfying an alkanol amine with fatty acid in the presence of a esterification catalyst/reductive bleaching agent having a standard reduction potential of at least 0.5 volts in order to form an esteramine and thereafter quaternizing said esteramine with dimethylsulfate, wherein said dimethyl sulfate contains less than 20 ppm sulfur dioxide.
6. The process of claim 5 wherein said esterification catalyst/reductive bleaching agent is selected from the group consisting of hypophosphorous acid, sodium hypophosphite and mixtures thereof.
7. The process of claim 6 wherein said fatty acid is a C₁₆ - C₂₂ acid containing a degree of unsaturation such that the iodine value ("IV") is in the range of from about 0-140.
8. The process of claim 7 wherein said fatty acid is selected from the group consisting of oleic, palmitic, erucic, eicosanic and mixtures thereof.

9. The process of claim 8 wherein said alkanol amine is of the formula:



wherein R, R₁ and R₂ are independently selected from C₂ - C₆ hydroxyalkyl groups.

10. The process of claim 9 wherein said alkanolamine is selected from the group consisting essentially of triethanolamine, propanol diethanolamine, ethanol diisopropanolamine, triisopropanol amine, diethanolisopropanol amine, diethanolisobutanolamine, methyl diethanolamine and mixtures thereof.

11. The process of claim 5 wherein said dimethyl sulfate contains less than 8 ppm sulfur dioxide.

12. The process of claim 11 wherein said dimethyl sulfate contains less than 5 ppm sulfur dioxide.